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Reply to Office Action of: 08/18/2009

The Examiner's rejection of claim 1 appears to rely upon the disclosures of Lueders and Ostergard but not Yamazaki. It appears that the Examiner has mentioned Yamazaki in relation to claim 1 as foundation for rejecting some of the dependent claims that refer back to claim 1.

Claim 1 claims, *inter alia*, "a set of physical switches arranged as a first fixed configuration in a first plane ... a set of mechanical key elements arranged as a second fixed configuration in a second plane wherein the first configuration and the second configuration are in register such that each mechanical key element overlies a corresponding switch such that movement of a mechanical key element by a user physically actuates its corresponding physical switch and wherein each mechanical key element has a length, a width and a height ... a continuous flexible display film, extending beneath the set of mechanical key elements arranged in the second configuration and over the set of physical switches arranged in the first configuration wherein the outer pads of the mechanical key elements provide a discontinuous raised profile with respect to the continuous flexible display film wherein the continuous flexible display film is configured to fixedly position the set of mechanical key elements in the second configuration ...".

Lueders teaches a keyboard 10 comprising a flexible display membrane 36 overlying a plurality of pressure-responsive switches 28 (see abstract). The keyboard 10 also comprises a flexible electroluminescent panel 34 and an electromagnetic shield 32. The flexible electroluminescent panel 34 and the electromagnetic shield 32 lie between the flexible display

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membrane 36 and a PCB 26 providing the pressure-responsive switches 28 (see Fig 1). The flexible electroluminescent panel 34 provides an "ambient backlight" (see column 4, line 33).

Figures 6 to 8 of Lueders illustrate how the keyboard 10 may be used. In particular, these figures relate to how the keyboard 10 is used in relation to an exemplary diagnostics program (see column 5, lines 59 to 62). The display membrane 36 is used to display text. If a user wishes to use the keyboard 10 to cause a function to be performed, he presses one of the switches 28 by depressing the display membrane 36 (see Fig 3) for example.

The object of Lueders is to provide a keyboard that can be used to display information to a user in an "endless" number of ways to enable a user to perform an "endless" number of functions. For example, column 5, lines 30 to 33 state that "the number of functions which the keyboard can accommodate are endless, and functions can be programmed with respect to any of the keys forming a part of the keyboard 10".

Ostergard discloses an integrated keymat or keyboard to be used on an electronic device (see abstract). Fig 1B of Ostergard illustrates a keymat 10'' comprising a substantially flat top layer 30' and a masking layer 32. The keymat 10'' further comprises electrodes 38, 42 and a light emitting layer 40.

The masking layer 32 includes a marking 34. The marking 34 may, for example, be a legend. Column 5, lines 49 to 55 indicate that when the electrodes 38, 42 supply electrical

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power to the light emitting layer 40, the legend is illuminated.

Column 8, lines 23 to 32 indicate that a "transparent, magnifying pad 60 can be provided on the keypad 20 of the keymat 10'' ". This is illustrated in Fig 8B. Column 8, lines 28 to 32 indicate that the purpose of the magnifying pad 60 is "to make the legends on the keypads more legible".

In the office action, the Examiner appears to admit that subject-matter of claim 1 is novel over Lueders because Lueders does not disclose "a set of mechanical key elements arranged as a second fixed configuration in a second plane wherein the first configuration [of a set of physical switches] and the second configuration are in register such that each mechanical key element overlies a corresponding switch such that movement of a mechanical key element via a user physically actuates its corresponding physical switch and wherein each mechanical key element has a length, a width and a height and comprises a separate outer pad for actuation by a user".

The Examiner argues that the "set of physical switches" referred to in claim 1 correspond with the pressure-responsive switches 28 in Lueders. The Examiner further argues that the "continuous flexible display film" referred to in claim 1 corresponds with a combination of the flexible display membrane 36 and the flexible electroluminescent panel 34 in Lueders. Finally, the Examiner argues that the "display controller" referred to in claim 1 and the functions performed by it are disclosed in Figures 6 to 8 of Lueders.

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The Examiner argues on page 5 of the office action that it would have been obvious to a person of ordinary skill in the art "to improve the keymat of Lueders by adding mechanical key elements and associating the display of indicia with the mechanical key elements as taught by Ostergard. The suggestion/motivation would have been to provide advantages such as to make the legend/indicia more legible".

As mentioned above, the purpose of Lueders is to provide a keyboard that can accommodate an "endless" number of functions (see column 5, lines 30 to 34). This is achieved by providing a display membrane 36 that can display text in an unrestricted manner. For example, Figures 6, 7 and 8 of Lueders each show different text positioned at different areas of the display membrane 36. One advantage of keyboard 10 disclosed in Lueders is that it is very adaptable/flexible. This is because text can be positioned anywhere on the display membrane 36, since there are no mechanical key elements overlying the display membrane 36.

The Examiner suggests that a person skilled in the art would adapt the keyboard 10 in Lueders by placing the transparent, magnifying pads 60 of Ostergard onto the display membrane 36 "to make the legends/indicia more legible".

Consider Fig. 6 of Lueders. The display membrane 36 displays the text "TI" at the switch in the third column and fourth row of the switches 28. If one were to place a transparent, magnifying pad 60 (from Ostergard) on this switch, the text "TI" would be magnified. However, when the text displayed on the display membrane 36 changes to that illustrated in Fig 7,

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a part of the term "TEXPERT" would be magnified and a part would not be magnified. The result of this would be that the term "TEXPERT" would be less legible than if the transparent, magnifying pad 60 had not been placed on the display membrane 36.

Thus, adding the magnifying pads 60 of Ostergard to the display membrane 36 of Lueders would not result in more legible legends/indicia being produced. Furthermore, adding the magnifying pads 60 of Ostergard to the display membrane 36 of Lueders would result in a keyboard that could not accommodate an "endless" number of functions, since in the many circumstances the text displayed on the display membrane 36 would not be legible. Consequently, the addition of the magnifying pads 60 of Ostergard to the display membrane 36 of Lueders would be contrary to the teachings of Lueders and as a result, there would be no motivation for a person skilled in the art to adapt the keyboard 10 of Lueders in this manner.

Applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). As described above, the addition of the magnifying pads 60 of Ostergard to the display membrane 36 of Lueders would be contrary to the teachings of Lueders.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary

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skill in the art. (see MPEP 2143.01, page 2100-98, column 1). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination (see MPEP 2143.01, page 2100-98, column 2). A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is **not sufficient** to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. (see MPEP 2143.01, page 2100-99, column 1) Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). >See also Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.)

In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide the features of claim 1. The features of claim 1 are not disclosed or suggested in the art of record. Therefore, claim 1 is patentable and should be allowed.

Though dependent claims 3, 5-11, 14, 15, 19, 20 and 24 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 1. However, to expedite prosecution at this time, no further comment will be made.

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Claim 16 claims, *inter alia*, "a plurality of mechanical key elements ... arranged as a first fixed configuration in a first plane, wherein each of the plurality of mechanical key elements has a length, a width and a height ... a plurality of physical switches arranged as a second fixed configuration in a second plane, adjacent the second side of the display device, wherein the first configuration and the second configuration are in register such that each mechanical key element overlies a corresponding physical switch such that a movement of a mechanical key element by a user physically actuates its corresponding underlying physical switch ... wherein the display device comprises a continuous flexible display film ... arranged in the first configuration and over the plurality of physical switches wherein the outer pads of the mechanical key elements provide a discontinuous raised profile with respect to the continuous flexible display film".

Similar to the arguments above with respect to claim 1, the purpose of Lueders is to provide a keyboard that can accommodate an "endless" number of functions (see column 5, lines 30 to 34). This is achieved by providing a display membrane 36 that can display text in an unrestricted manner. For example, Figures 6, 7 and 8 of Lueders each show different text positioned at different areas of the display membrane 36. One advantage of keyboard 10 disclosed in Lueders is that it is very adaptable/flexible. This is because text can be positioned anywhere on the display membrane 36, since there are no mechanical key elements overlying the display membrane 36.

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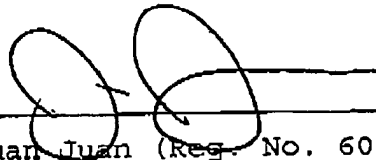
Applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In the present case, there is no teaching, suggestion, or motivation, found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to provide the elements as claimed in claim 16. The features of claim 16 are not disclosed or suggested in the art of record. Therefore, claim 16 is patentable and should be allowed.

Though dependent claims 17 and 18 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 16. However, to expedite prosecution at this time, no further comment will be made.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. If there are any additional charges with respect to this Response or otherwise, please charge deposit account 50-1924 for any fee deficiency. Should any unresolved issue remain, the examiner is invited to call applicants' attorney at the telephone number indicated below.

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Respectfully submitted,

  
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11/17/2009  
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